

# IGCSE chemistry section 1f

## INVESTIGATING PROPERTIES OF IONIC SOLIDS

Ionic solids are made when a metal and non-metal react. The atoms of the metal give electron(s) to the atoms of the non-metal changing both types of atoms into ions which are attracted to each other as they have opposite charges.

### Aim

The aim of this experiment is to investigate the properties of solids that are made up of ions.

### Procedure

Examples of ionic solids are \_\_\_\_\_

You need to carry out the tests below and record all your observations in a results table.

#### Appearance

Spread a few grains of the substance on a microscope slide. Focus your microscope on the grains or use a hand lens. Describe their appearance e.g. what shape and colour are the grains.

#### Heating: melting point

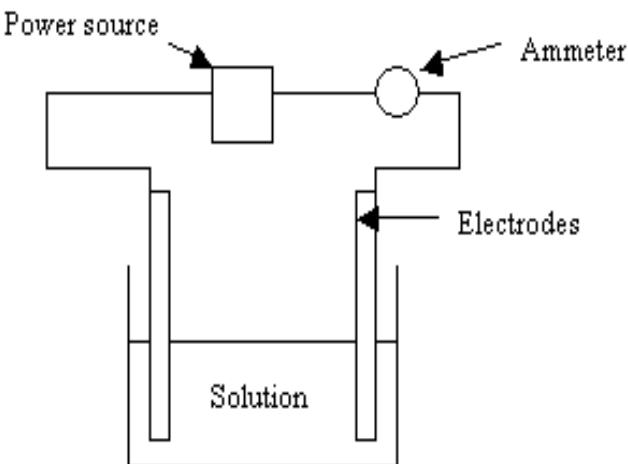
Place a spatula of the solid in a test tube and heat gently. Record what happens. If nothing happens heat strongly.

#### Solubility in water

Add half a spatula to a test tube half-filled with water. Cork it and shake for about 30 seconds. Is the substance soluble in water?

#### Electrical conductivity

Set up the circuit as shown below.

	<p>a. SOLID: Dip the electrodes in some of the solid. Does the bulb light? Does the solid conduct?</p> <p>b. SOLUTION: If it dissolved in the above test, add 2 spatulas to half a beaker of water. Stir it with a glass rod. Dip the electrodes into the solution. Does the bulb light? Does the solution conduct?</p>
---	---

### Conclusion

Summarize the properties of ionic solids.